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A STUDY OF THE LEISURE-TIME INTERESTS AND ACTIVITIES OF FIRST-YEAR WOMEN AT THE UNIVERSITY OF ALBERTA

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Abstract

This study reports the results of a questionnaire concerning the leisure-time interests and pursuits of 342 first-year women at the University of Alberta. The students participated in a variety of activities, but there was need expressed for additional instruction in most cases and initial instruction in others. There was a general indication of a need for greater equality of opportunity for students from rural districts, those who had attended rural high schools, those in low socio-economic brackets, and those from homes where the parents have no education beyond high school.

The Nature and Extent of the Problem

The acceleration of technology and the spread of intellectual, social, and economic opportunities have made leisure more extensive than during any previous period in history. Automation will be with us to a greater extent with each passing year and as a result, the number of hours of leisure time is likely to increase. August Heckscher,² director of the Twentieth Century Fund, has estimated that the four-day week will be established in 1975. However, leisure is recognized as constituting both an asset and a problem as the value of leisure depends entirely upon its use.

Gerald Wendt,⁵ president of UNESCO Publications Centre stated that the students of today will have what no generation has ever had—complete time to live. They need education for this challenge as much as for earning a living. Eugene T. Lies⁴ emphasized the need for school administrators and teachers to be cognizant of the serious problems involved in the wrong use of leisure and the marvellous possibilities for human advancement with its right use. Only then, he maintained, will the phrase "preparation for life" be meaningful. In 1939, the American Association of School Administrators passed a resolution³ which stated their belief in a well-balanced school curriculum in which the fine arts would be included side by side with mathematics, history, and science.

In order that education can achieve its objectives of training the individual for life, educational programs must continually be evaluated, and, if necessary, be revised to conform with changes in the social and economic patterns. The American Psychiatric Association has set up a standing committee to study the relationship of

leisure to mental health. The Centre for the Study of Leisure is surveying this subject. The Twentieth Century Fund has plans for a major study of the problems of leisure, and numerous limited studies have been made.

Although surveys and studies made in the United States are of value in understanding youth and the leisure problems in general, the surest guide to the local situation is a study of the leisure-time interests and pursuits of Alberta youth. Marion Broer and Dolly A. J. Holland¹ stated that educating youth to meet life's problems can be accomplished more successfully if student objectives are satisfied and their interests and needs met in a way that is stimulating and pleasant to the students.

Purpose of the Study

The purpose of this study was to determine the leisure-time interests and pursuits of women who had completed their senior matriculation and were engaged in furthering their education at the University of Alberta. Only those students registered in a program leading to a Baccalaureate degree were included in the study.

In addition, the survey was planned to determine what effect factors such as geographic location of the home, type of high school attended, socio-economic status, the parents' education might have had upon the students' interests and participation.

Procedure

A questionnaire was designed to include a representative sample of leisure-time activities in each of the following areas:

1. Leisure Reading including books, magazines and newspapers.
2. Recreational Sports designed as physical activity including team sports, individual sports, and outing activities.
3. Fine Arts including music, art, and drama.
4. Home Recreation including activities such as entertaining, visiting, listening to radio, and viewing television.
5. Individual Recreation including activities such as attending the movies, dating, travel, and various handicrafts and hobbies.
6. Clubs and Societies including active membership and leadership in organized groups.

The questionnaire was checked for clarity and inclusiveness by conducting a pilot study with a class of students who were registered in the one-year teacher-training program. After some minor revisions, the questionnaire was given to 342 first-year students during the last two weeks of March, 1959.

Data obtained were then transferred to IBM cards which were sorted to extract the information necessary for analysis and tabulation.

Presentation and Interpretation of the Data Leisure Reading

The students were asked to state their first to fifth choices from a list of five leisure-time activities. Their answers showed the following ranking:

	First Choice		Second Choice	
	Number	%	Number	%
Reading	119	34.79	131	38.01
Going to Movies	119	34.79	97	28.35
Attending Plays	69	20.17	77	22.51
Radio Listening	19	5.52	15	4.68
Television Viewing	13	3.80	19	5.52
No Answer or Incomplete ...	3	.93	3	.93

The foregoing tabulation shows that reading and going to movies were each listed as first choice by 34.79 per cent of the students. However, when second place ranking was taken into consideration, reading led the list as the most favored activity of the five named.

Fiction was preferred to non-fiction by a ratio of three to one, and the usual means of choosing a book was by author's name. In the fiction class, novels ranked as first choice, and in the non-fiction class biography ranked first.

The *Readers Digest* was the magazine preferred by most of the students. *Time* and *Newsweek* ranked second. Whereas 12.86 per cent of the students indicated their preference of magazines to books, 39.18 per cent stated that they preferred reading books. The other 47.96 per cent stated that they liked both equally as well.

Insofar as newspaper reading was concerned, 64.61 per cent read a newspaper regularly, and the sections usually read were the front page, the headlines and the comics.

The analysis of reading according to the factors selected served to indicate that city and town students do more leisure reading than students from the rural areas.

The amount of reading done and the interest in reading tended to increase proportionately with increased income, parents' education, and the availability of home libraries.

Recreational Sports

The participation percentages during the students' years at high

school and their one year at the University of Alberta are tabulated as follows:

Recreational Sports	High School	University
Individual Sports	90.99	59.95
Team Sports	87.13	38.30
Aquatics	44.73	21.34
Outing Activities	72.51	15.78
Dance	77.48	55.84

Individual Sports

The interests developed in individual sports during high school tended to continue into university with the most participation in bowling, skating and badminton. The greatest number of requests for instruction were made for badminton, tennis, and golf.

Tabulations made according to home location indicated that the rural students participated least, and although the town students were the most active participants during high school, the city students were the most active participants while at university.

Home location and socio-economic status had a very definite influence on the numbers who had private instruction in figure skating and golf. None of the rural students had private instruction and only five per cent of the students in the lowest socio-economic category had taken private instruction.

Parents' interest was primarily in golf, skating, and bowling, and although there was a correlation between parents' interest in golf and private instruction given to students, there was not a significant correlation between student participants and parents who were golf enthusiasts.

Team Sports

Student participation in team sports was considerably less than in individual sports. While at the university, students participated mainly in volleyball, basketball and curling.

The comparison of participation in individual and team sports showed the following distribution:

	Number	Per Cent
Present participation in individual sports only	100	29.23
Present participation in team sports only	26	7.60
Present participation in team and individual sports	105	30.70
No participation in individual or team sports	111	32.45

The above tabulation indicates that 111 students took no active part in individual sports or team sports during their first year at university. However, on further analysis it was found that 47 of these students did take some part in other recreational sports.

To determine whether present living accommodation had any

effect on participation, an analysis was made of the non participants. It was found, that, as a group, students living in residence had the lowest rate of non-participation. It was concluded that residence life was conducive to active participation.

Age is a factor that is sometimes stated as a reason for non-participation in sports. However, it was found that although the students ranged in age from seventeen to thirty-six, 71.87 per cent of the non-participants were in the seventeen to nineteen age group.

To determine whether parents' interest in curling had any correlation with students' participation in curling, an analysis was made of this one sport. Of the students who participated in curling, 41.95 per cent had parents who were curling enthusiasts. This was an increase over the golf correlation where 26.08 per cent of the parents were golfing enthusiasts.

The analysis according to home location indicated that the rural students had taken an active part in team sports especially in curling and fastball.

Aquatics

There was less participation in aquatics than in individual or in team sports. It was also noted that pleasure swimming was the sport in which the greatest number of requests for instruction were made.

Only 11.98 per cent of the students stated that their parents were interested participants or enthusiastic supporters of aquatics. This would seem to indicate that student interest was developed by agencies other than the home. As was noted in individual sports, the students from the country had the least opportunity for instruction in swimming.

Outing Activities

The outing activities in which there were the greatest numbers participating were picknicking, camping, and hiking. Parents' main interests were listed as fishing, camping, and hunting.

In determining a correlation between parents' and child's interests, it was found that although fishing ranked fifth in the list of activities enjoyed by the students, 48.73 per cent of these were from homes where the parents enjoyed fishing. It was also noted that participation in outing activities was least affected by low socioeconomic status.

Dance

Information obtained from the dance section indicated that dance played a very important role as a leisure-time activity, and in present participation it ranked second to individual sports.

Requests for social dance instruction placed it eighth when ranked with requests in all recreational sports. However, dance instruction in high school and participation in high school had the greatest carry over value since participation in dance as a leisure-time activity ranked first at the university.

Fine Arts

The section in fine arts included information on the students' interests and participation in drama, art and music.

In the field of dramatics, participation during high school and university was mainly in amateur acting. When asked what they would like to do, costume design, make-up, and stage design were the activities most often listed. Approximately two-thirds of the students had taken part in some form of dramatics, and the students from the town high schools recorded the most participation during their high school years.

The greatest interest in art was shown in painting and sketching, but the numbers indicating their desire for participation in art was considerably less than for drama. It was also noted that 69.12 per cent of the students who participated in art were drama participants as well.

The majority of the students participated in some form of music. Seventy-one per cent had taken music lessons, and 64.32 per cent stated that they played a musical instrument. Semi-classical, popular, and classical opera were the three classes of music preferred. This interest was also evident from the kinds of records collected.

In an analysis of fine arts participation according to parents' education, it was found that art participation was not as dependent on parents' education as was drama participation. The general trend in music indicated that participation increased as education beyond high school increased.

Home Recreation

Family life constitutes a group experience which is the individual's first step in association with other people, and therefore is the basis for associations with subsequent groups. In this study, one-third of the students indicated that recreation as a family group was carried on frequently. However, in homes where the mother worked, there was a definite lack of family recreation.

Travel was indicated as the activity which was most often carried on by the family as a group. Entertaining and visiting friends, a social activity carried on in the home, ranked second. Card games (other than bridge) led the list of quiet games in which there was frequent participation and bridge was the game in which there was the greatest interest.

As was noted in the section on leisure reading, listening to the radio and viewing television ranked fourth and fifth respectively. In radio listening, popular music was the first choice, while symphony and news ranked as low seconds. The information on television viewing indicated 45.02 per cent of the students enjoyed watching television, 50.58 per cent enjoyed watching occasionally, and 4.4 per cent stated that they did not enjoy watching television. Theatre programs and family programs were watched and enjoyed most often.

According to home location, students from the rural areas indicated more frequent family recreation than did the students whose homes were in the city or town. It was also noted that although the students in the top income bracket ranked above the other two categories in frequent family recreation, those in the lowest income bracket were a very close second.

Individual Recreation

The questions in the section on individual recreation dealt with interest in a variety of activities.

The students' interest in going to movies was equal to their interest in leisure reading according to first choice ranking. Drama was listed by 44.75 per cent as the favorite type of show enjoyed; comedies and musicals ranked second and third respectively.

Attending dances and parties was the first choice of 47.66 per cent of the students as their preferred activity on a date. Attending plays and concerts, and going to the movies ranked second and third respectively. However, the students did not go to plays and concerts as often as desired.

Handicrafts and hobbies were an important leisure-time activity as 94.73 per cent of these students indicated that they participated frequently or occasionally. Dressmaking, collecting items, and caring for pets were the three hobbies in which there was the most frequent participation. When asked what they would like to do, leather craft and photography were listed most often.

Clubs and Societies

Clubs and societies are a medium through which the need for companionship can be satisfied. As a member of a club, and especially as a member of the executive, the ability for planning and organizing is developed.

The students in this study belonged to an average of 1.3 clubs. Membership was highest in faculty societies, religious clubs, and the women's fraternities.

Club membership at the university was considerably lower than club membership in high school, but there was an indication that the students planned to join more clubs during their second year.

Conclusions and Recommendations

1. Leisure-reading books are usually chosen by author's name. The high school leisure-reading program should continue to emphasize author's writing style and subject area so that students read books by different authors.
2. More and better libraries should be provided in the rural areas of Alberta. This recommendation is based on the comparatively small amount of reading done by rural students and on the lack of libraries in their homes.
3. The physical education programs for senior high schools in Alberta should be planned to include more emphasis on sports such as badminton tennis, golf, and archery. This recommendation is based on the students' requests for instruction in these activities.
4. Since more requests were made for swimming instruction than for any other recreational sport, it is recommended that swimming instruction be a part of every physical education program.
5. The number of students who expressed a desire for participation in drama and art exceeded the number who were participating. It was recommended that steps be taken to improve the opportunity for participation in drama and art in the high schools and at the University of Alberta, so that the students' desires can be realized.
6. Non-school agencies should provide additional opportunities for youth participation in all leisure-time activities and especially in the fine arts.
7. Since there is a lack of frequent family recreation, especially in the cities, it is recommended that all agencies should place more emphasis on this leisure-time activity.
8. An effort should be made to encourage the interest expressed in attending plays and concerts.
9. Students living away from home should be given guidance and encouragement in their leisure-time pursuits at the University of Alberta. University residence accommodation would be one means of helping them feel that they are part of a group. This suggestion is based on the high participation shown by the residence students in recreational sports.
10. Students from the rural areas and those who were in a low-income category had less opportunity for participation in leisure-

time activities. The school and the community should put forth every effort to help solve the lack of leisure-time pursuits experienced by these students. This recommendation is based on the requests for instruction and interest in these leisure-time pursuits.

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EXPECTATIONS OF SCHOOL BOARDS FOR THE ROLE OF THE PROVINCIALLY APPOINTED SUPERINTENDENT OF SCHOOLS IN ALBERTA

J. H. FINLAY AND A. W. REEVES

The Problem

It was the purpose of this study to make an intensive survey throughout Alberta of the expectations that school board members hold for the role of the provincially appointed superintendents of schools. In the course of the study the following questions were investigated:

1. What are the expectations of school boards for the role of the superintendent in (a) instructional leadership; (b) selection and management of staff personnel; (c) pupil personnel - transportation, attendance, discipline; (d) provision and maintenance of school facilities; (e) finance; (f) administrative organization and structure; and (g) public relations?
2. Do the expectations of county school committees differ significantly from those of school boards?
3. Do the expectations of chairmen of school committees and boards differ significantly from those of the members?
4. Do the expectations of inexperienced members differ significantly from those of experienced?
5. Do the expectations of persons engaged in business occupations differ significantly from those engaged in agriculture?
6. What relative importance do school board members attach to the areas of administration mentioned in (1) above?
7. Is there any significant difference in the importance attached to these administrative tasks by the groups mentioned in 2, 3, 4, and 5 above?

Need for the Study

The need for research to discover the range of expectations held by divisional boards for the performance of the superintendent's role was expressed by the Chief Superintendent of School for Alberta* in an address to the Alberta superintendents. Dr. Byrne stated that most superintendents are sensitive to the special expectancies of boards which they serve. If, however, the superintendent's role performance differs too markedly from board expectations, conflicts result. He adds that the uncertainty as to the board's expectancies and the task of discovering these is one of the first problems faced by the beginning superintendent.

*T. C. Byrne, in an address to the Alberta superintendents, January, 1958.

Collins**, in his study of the role of the provincial superintendent in Canada found, when he compared the expectations of superintendents with their actual behavior, that the greatest degree of conflict existed in the significance placed on sources of authority. Only in the activities related to instruction and instructional management did the superintendents acknowledge the authority of the Department of Education as the main determinant of their activities and behavior. Almost all superintendents interviewed in this study indicated that they would like to have a more careful definition of their position. They felt that the effectiveness of their work and the efficiency of the local school system were suffering because of conflicts inherent in the legitimate expectations of the various groups.

With the steadily increasing administrative load, this uncertainty with respect to the role of the superintendent is growing. Where at one time the total administrative staff of a school division consisted of the superintendent and secretary, today, in several divisions, it has grown to include such personnel as assistant superintendents, helping teachers, special subject supervisors, supervisors of instruction, librarians, stenographic help, and superintendents of works. These persons are all board employed. Do the boards expect them to work under the direction of a superintendent who is provincially employed? The problem is a complex one, and one that requires clarification.

Design of the Study

Through the cooperation of the school superintendent school board expectations were determined by means of a questionnaire. All divisional school board members and every county school committee member was given an opportunity to complete the questionnaire. Eight-four percent of a total of 324 forms was returned.

The questionnaire divided the role of the Alberta school superintendent into seven areas: instructional leadership, selection and management of staff personnel, pupil personnel, provision and maintenance of school facilities, school finance, administrative organization and structure, and public relations. Under each of these heads were listed critical tasks—forty-four in all—which school board members might expect the superintendent to perform. Respondents were asked to express their expectations of the superintendent in each of these tasks by choosing one of the following roles:

- (a) The superintendent should perform this duty independently of board direction.

**C. P. Collins, "The Role of the Provincially Appointed Superintendent of Schools in Larger Units of Administration in Canada". Unpublished Doctoral Dissertation. University of Alberta, 1958.

- (b) The superintendent should be responsible for the performance of this duty under the direction of the board.
- (c) The superintendent should be expected to act in an advisory capacity in this case.
- (d) This should not be considered a responsibility of the superintendent.

In addition to indicating their expectations of the superintendent for each administrative task, respondents were asked to rank the seven broad areas in the order in which they considered them to be important as administrative functions of the superintendent.

For the purpose of this study, it was necessary to obtain certain information about the respondents. They were asked to indicate whether they were county school committee or school board members, chairmen or members, inexperienced (less than two years) or experienced, their occupations, and past school contacts.

Summary of the Findings

1. The respondents in this study showed strong preference for independent action on the part of superintendents in the performance of duties related to instructional leadership. They considered this to be the most important function of the superintendent and few saw any need for directing him in this area of his work.
2. In the selection and management of staff personnel the majority of the respondents indicated that they expected the superintendent to act under the direction of the board with respect to the selection and placement of personnel: specifically principals and teachers.
3. In the same area of personnel management, respondents almost equally favored independent action or action under board direction for the superintendent in the task of directing the work of locally employed supervisory personnel.
4. In the selection and management of secretary-treasurers and other non-professional staff, the respondents indicated strongly that they expected the superintendent to assume no responsibility. Experienced members showed significantly higher expectations for the role of no responsibility regarding non-professional staff than did the inexperienced members.
5. Respondents expected the superintendents to take an active part in promoting the welfare of the teachers. While opinion was fairly evenly divided as to what form of action he should take, the greatest preference was shown for action under the direction of the board. Businessmen and farmers, however, disagreed

significantly here, with businessmen showing strong preference for independent action and farmers for action under board direction.

6. Respondents ranked selection and management of staff personnel second in importance only to instructional leadership as a function of the superintendent. They placed this above pupil personnel management, which area they ranked third in importance.
7. In the area of pupil personnel administration respondents indicated that they expected the superintendent to act independently of board direction in performing those tasks where professional knowledge of educational theory is essential. Where professional knowledge is not required, respondents favored the role of advisor for the superintendent.
8. Inexperienced and experienced board members differed significantly in expectations for superintendent action regarding several of the tasks related to pupil personnel administration. Where a difference occurred, the inexperienced members invariably showed expectations for greater independent action or board directed action by the superintendent while the experienced tended to favor the advisory role or, in some instances, no responsibility whatever.
9. Chairmen and members differed significantly in expectations for the role of the superintendent in the task of providing students with information about future job and educational opportunities. Chairmen showed greater expectations for superintendent action under board direction for this task than did the members, while the members favored the advisory role more strongly.
10. In tasks related to the provision and maintenance of school facilities, respondents in the main looked upon the superintendent as an advisor. Only in the matter of recommending an architect to the board did the respondents favor another role and then only by a difference of one per cent. Forty-four per cent favored no responsibility for the superintendent in this task while forty-three per cent favored the role of advisor.
11. Inexperienced and experienced board members differed significantly in six of the ten tasks related to provision and maintenance of school facilities. While, as stated above, the advisory role was generally favored, inexperienced members leaned more strongly towards superintendent action under board direction and the experienced more frequently showed preference for no responsibility by the superintendent.

12. In the first task of the above area—that of estimating the building needs of the division—businessmen and farmers differed significantly in six of the ten tasks related to provision and maintenance of school facilities. While, as stated above, the advisory role was generally favored, inexperienced members leaned more strongly towards superintendent action under board direction and the experienced more frequently showed preference for no responsibility by the superintendent.
13. In the area of school finance, respondents indicated clearly that they expected the superintendent to assume no more than an advisory role and when it came to making surveys with respect to equitable pay scales for non-professional employees, they expected the superintendent to assume no responsibility whatever. Here again, however, expectations of inexperienced members were significantly higher for superintendent action than were those of the more experienced.
14. In tasks related to administrative organization and structure, respondents again looked upon the superintendent as an advisor. Only in one of these tasks was a significant difference found between the expectations of two groups of respondents and again the difference was between inexperienced and experienced members. In the task of organizing local boards and committees, a significantly smaller number of inexperienced members favored the advisory role and larger percentages favored independent action or no responsibility at all than was the case for the experienced members.
15. Respondents ranked the area of finance as the least important administrative function of the provincially appointed superintendent.
16. In the area of public relations, respondents generally favored independent action by the superintendent. They did not, however, rank this area high in importance as a function of the superintendent. It was ranked fifth in importance, along with the areas of administrative organization and structure and the provision and maintenance of school facilities.

Conclusions

1. School boards in Alberta attach greatest significance to the provincially appointed superintendent's role as an instructional leader and expect him to perform the tasks related to this area independently of their action. As yet in Alberta, the major responsibility for curriculum lies with the provincial government. Board members are aware of this and expect the line officer of the Department of Education to assume a leadership

- role, independent of their direction, in all matters concerning the improvement of instruction.
2. School boards in Alberta see the superintendent as acting in the capacity of an executive officer in hiring and placing teachers and principals in their schools.
 3. School boards expect the superintendent to direct the work of locally employed supervisory personnel. There appears to be little danger that boards will by-pass the superintendent and deal directly with locally employed supervisory staff.
 4. School boards wish to direct the work of non-professional staff themselves. They do not see the superintendent assuming any responsibility in this area.
 5. The fact that the area of selection and management of staff personnel was ranked second in importance to instructional leadership as a function of the superintendent, leads one to conclude that school boards hold high regard for the superintendent's services in the employment of professional staff, realizing fully the impact that careful selection of staff can have upon instruction in the classroom.
 6. The more confident or capable board members feel with respect to an administrative task the less inclined they are to delegate authority to the superintendent. One can conclude here that board members like to consider themselves as administrators rather than simply legislators or policy makers. Invariably, there were fewer expectations for superintendent action when the task being considered was one which could be performed by a layman. And further, to substantiate this conclusion, the more experienced a board member was, the less expectations he held for superintendent action.
 7. The fact that the area of finance was ranked least in importance as a function of the superintendent forces one to conclude that boards in Alberta wish to retain very close control of spending. It is obvious that they do not consider that the superintendent must be an expert in this field. This conclusion is closely related to the preceding one and further emphasizes that board members prefer to consider themselves as administrators.

Further Research

Students of administration, whether concerned with business, hospitals or schools, have always seen a clear distinction between the major function of a board and that of its professional staff. In general the board is pictured as a body of laymen which exercises control without getting involved in the machinery of operation, by

setting up guides for discretionary action on the part of its executives. The chief executive officer, in the case of a school system the superintendent, has the task of translating the board's policy into action. The actual administration of the enterprise is delegated to a professional staff while control is by the board exercised through the determination of policy.

School superintendents, it was stated earlier, need to be sensitive to the realities of the administrative system in which they work. These men have a role to play, a role which is influenced by many reference groups. This study leaves little doubt about the image of the superintendency held by the rural trustee of Alberta. It would be interesting to contrast the provincial superintendent's role envisaged by the school board members with that propounded by graduate schools of administration, with that expected by teachers, by citizens of the community, the Department of Education, and even by the superintendents themselves. Further research might also seek to explain why, in the midst of extensive organization of large units of school administration, the pattern of school board operation in rural Alberta differs little from that in existence prior to the formation of the divisions over twenty years ago. What has been the experience in other provinces where the rural superintendent is also provincially employed? What are the expectancies of school board members for the superintendent in towns and the smaller cities in which this official is locally employed? This study is one of a series that will explore the place of the school superintendent in Canadian school administration.

PROLEGOMENA TO A SYSTEMATIC STUDY OF MOTIVATION IN EDUCATION: I SKINNER*

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Educational research on motivation, defined by Lindsley (1957) as the "... combination of forces which initiate, direct, and sustain behavior toward a goal" (1957, p. 48), has been of little value because of its disconcertingly unsystematic quality. For example, the following factors have been claimed as facilitating good academic motivation: independent discovery (Kersh, 1959); writing comments about objective examinations (Calvin et al., 1957); knowledge of results (Della-Piana, 1957); no independent variables such as praise and reproof (Silberman, 1957); intelligence, socio-economic status, large enrolment and good morale (Kemp, 1955); a drive for higher occupational status (Hieronymous, 1951); frequent testing (Fitch, Drucker and Norton, 1951); group study (Blue, 1958); five clusters of Murray's needs (Middleton and Guthrie, 1959)—this list could be extended further. Occasionally someone (Holland, 1959) attempts to produce a meaningful synthesis by linking some of these strands, but this cure is worse than the disease:

... these findings suggest that the high achiever lacks capacity for status, is unsociable, lacks poise and self-confidence, is self-deprecating and inflexible, minimizes worries and complaints, is conscientious and responsible, is well-controlled, and creates a favourable impression, does well academically under direction but is not as adept in situations demanding independent judgement, is interested in and responsive to the feelings of others and has feminine interests. (1959, p. 140).

Clearly this will never do: the teacher must have some general conception of good motivation which he can apply to the interpretation, control and change of children's behaviour in a variety of circumstances. The educational psychologist must be able to provide him with such an academically sound systematic approach with which the teacher can replace his own home-made constructions.

Where can such an approach be found?

The first source is clearly Skinner (1953) (1959), who relies for his explanation of behavior on functional relationships between stimulus and response, regarding as fictitious and tautological any causal explanation couched in terms of "inner events" intervening between stimulus and response. This functional analysis of behaviour involves the position that the variables of which behaviour is a function lie outside the organism and it is these variables that we

*This is the first in a series of three articles.

must manipulate if we wish to control and predict behaviour (*ibid.*, p. 35). Accordingly, what specific environmental condition is responsible for motivating operant (voluntary) behaviour? The answer is deprivation or refusal to allow the organism the gratification of fundamental drives which are sources of primary reinforcement because they are biologically advantageous (*ibid.*, p. 83). Primary reinforcers can be classified as positive (presenting stimuli such as food and water to the individual) and negative (presenting a loud noise or bright light or electric shock to the organism), and it is generally assumed (Bindra, 1959, p. 116) that the former increase the habit strength of an associated response, the latter decrease it.

Primary reinforcement (with food, for example) of a biological drive (hunger) brings the organism under the control of the appropriate deprivation, (relative starvation) and, consequently, acquired secondary reinforcers may be set up in the environment to motivate behaviour just as strongly as their unconditioned associates originally did provided these reinforcers have a consistent or moderately consistent connection with the primary rewards and are not transiently and artificially linked with them as a result of the researcher's experimental design. Consider, for example, the power of a generalised secondary reinforcer such as money.

A conditioned reinforcer is generalized when it is paired with more than the one primary reinforcer. The generalized reinforcer is useful because the momentary condition of the organism is not likely to be important. The operant strength generated by a **single reinforcement** is observed only under an appropriate condition of deprivation—when we reinforced with food, we gain control over the hungry man. **But if a conditioned reinforcer has been paired with reinforcers appropriate to many conditions**, at least one appropriate state of deprivation is more likely to prevail upon a later occasion. A response is therefore more likely to occur. When we reinforce with money, for example, our subsequent control is relatively independent of monetary deprivations. (*ibid.*, p. 77)

Various generalised reinforcers are discussed, including attention (*ibid.* p. 78) and approval and affection.

Attention is often not enough. Another person is likely to reinforce only that part of one's behavior of which he approves, and any sign of his **approval** therefore becomes reinforcing in its own right. Behavior which evokes a smile or the verbal response "That's right" or "Good" or any other commendation is strengthened. We use this generalized reinforcer to establish and shape the behavior of others, particularly in education. For example, we teach both children and adults to speak correctly by saying "That's right" when appropriate behavior is emitted.

A still stronger generalized reinforcer is **affection**. It may be especially connected with sexual contact as a primary reinforcer but when anyone who shows affection supplies other kinds of reinforcement as well, the effect is generalized. (*ibid.*, p. 78).

All generalised secondary reinforcers such as the above together with educational tokens such as grades, diplomas and degrees, shape and maintain behaviour if applied according to the best schedules of

reinforcement, notably differential reinforcement, the rewarding of correct and the non-rewarding of incorrect responses, and intermittent reinforcement, the application of rewards sporadically and not consistently (*ibid.*, pp. 91-100).

What has all this to do with education? Firstly, there is the question of punishment; Skinner notes its ubiquity, questions its morality (*ibid.* p. 182), denies its efficiency. Relying on Thorndike's later work and his own conditioning experiments, he reports the findings that punished responses are not eradicated but merely repressed, and that they will, if later allowed to go unpunished, reappear again after the fashion of Freud's repressed wishes (*ibid.*, p. 183). Another undesirable after-effect of punishment is the presence of guilt feelings which are strengthened by parental verbal reinforcers. (*ibid.*, p. 188).

And with what would Skinner replace punishment of this sort? Unlike many other writers, he states his remedy quite openly. Using adequate schedules of reinforcement and an adequate reinforcer, he would 'shape up' behaviour in the desired direction (1959, pp. 137-138).

The current nationwide problem of school discipline is frequently, though possibly erroneously, attributed to progressive education. Whatever its explanation, it is a serious problem. How can we recapture the orderly conduct once attributed to discipline without reinstating all the understandable by-products of an inhumane aversive control? The answer is: use positive reinforcement instead of punishment. But how? A first step is to analyse the reinforcing contingencies in the classroom. In particular, what reinforcers are available to the teacher? The answer to that question is sometimes discouraging, but even in the worst possible case she can at least reinforce a class by dismissing it. The point is that she must understand that dismissal is reinforcing if she is not to throw away the small measure of power it offers her. The 'natural' thing is for a teacher to dismiss the class when its conduct is most aversive to her. But this is exactly the wrong thing to do, for she then differentially reinforces the very behaviour she wants to suppress. A teacher who understands reinforcement will survey the class during the final minutes of a period and choose for dismissal the moment at which things are going as well as can be expected. (1959, pp. 138-139).

It is easy to be cynical about this—for example, it presupposes that a class is of homogeneous ability or that reinforcement on an individual basis is possible—but comment is superfluous until this strategy is put to an experimental test. Certainly the evidence of both Postman (1948) and Mowrer (1960) suggests that punishment can be efficacious under certain circumstances in promoting the avoidance of certain undesirable responses.

Other contributions of Skinner to education, most notably his invention and championing of teaching machines, are based on the same view of motivation as the presenting of positive reinforcers according to the best schedules of reinforcement. For example, Keislar

(1959) has argued, from a Skinnerian point of view, that the problem of arousing a 'set to learn' becomes that of presenting to the student stimuli which have been previously presented when the student's learning has been reinforced successfully. Specifically, if students are reinforced for exhibiting this learning set in a variety of situations where a common distinctive stimulus is present, then that stimulus as a second-order reinforcer will acquire control of the learning set and the subjects will learn when this stimulus is present. Examples of the successful reinforcer might be, depending on the age of the children, consumables and manipulables in the shape of marbles, toys, trinkets, dime-size cookies (Bijou, 1957). Examples of the stimuli acquiring reinforcing properties are, according to Keislar, 'Now pay close attention,' 'I am going to give you a test,' 'This is how jet airplanes fly', 'Here is how you can earn money', 'This is important', and so forth. And why do teachers say these things without much apparent effect on the class? The answer is that children have not been reinforced at the same time as these verbal responses were being made. We do wrong, according to Keislar, to label such behaviour as 'disinterested' and to ascribe it to 'individual differences', the personality of the child, and so on; such statements about 'inner events' are merely labels for the behaviour we observe and are of little help in remedying the situation. The helpful approach is to recognise that the children's learning in the past has not been reinforced under these circumstances.

How useful is all this for education? The value of Skinner's conception of reinforcement is considerable, although some educators might assert that he is too optimistic about the amount and strength of the reinforcers available to the teacher. However, Skinner is placing constraints on the applicability of his system by declining to recognise the necessity of taking into account events going on between stimulus and response. These mediational variables are a necessary and economical way of accounting for the fact that not infrequently the same stimulus provokes a different response in different people. Often certain teachers are sources of positive reinforcement to some students, of negative reinforcement to others. Reinforcement is not necessarily divorcible from the personality of the individual, a fact which causes practical instructional and administrative problems, and a more adequate account of motivation must take some account of these elusive mediational variables.

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DIFFERENTIAL GRADE PREDICTION: A NOTE ON ITS EFFECTIVENESS FOR A FRESHMAN CLASS OF ENGINEERS

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An earlier article by Black (1960) proposed a method of predicting freshman success in the University of Alberta using the technique of differential grade prediction. This paper will report the effectiveness of this technique to predict freshman Engineering success for the class of 1957-58.

Two methods of predicting success by this technique will be used: first, using seven Grade XII Departmental scores, English 30, Social Studies 30, Mathematics 30 and 31, Physics 30, Chemistry 30 and the score on the Foreign Language 30 examination: and second, using five Grade XII Departmental examination-based scores, English 30, Social Studies 30, the average of the two Mathematics 30 and 31 scores, (Math X), the average of the Physics 30 and Chemistry 30 scores (Science X), and the Foreign Language 30 score.

Method

The prediction equations for seven and five predictor variables in eight Engineering courses and freshman Engineering average were determined from the 1956-57 freshman Engineering class. These equations are presented in Table I.

A sample of 245 Engineering freshmen from the class entering in the fall of 1957 was chosen for this study. This is called the Operational sample. Only those students who were from outside the Province or who had completed their high school programs before the present system of Departmental examinations was instituted, were excluded from the study. Each student had his marks in freshman Engineering courses predicted by the two methods. The predicted grades were then compared with the marks actually achieved. The accuracy of these predictions was determined and was compared with the accuracy predicted from the 1956-57 sample, the Developmental sample.

Results

The correlation coefficients and standard errors of estimate between predicted and actual marks are reported in Table II. It should be noted here that during the 1957-58 year, the Faculty of Engineering introduced a new course, Drawing 2, to replace the

TABLE I
PREDICTION EQUATIONS FOR ENGINEERING FRESHMEN
USING SEVEN AND FIVE VARIABLES

Predictor Variable	Engineering Variable								
	C.E. 5	C.E. 6	Draw 2	Draw 4	E.M. 1	Physics 21	Math. 2	Chem. 40	Average
English 30									
Social Studies 30	.265		.148		.188		.263	.204	.175
Mathematics 30		— .111					.322		
Mathematics 31	.340		.103		.374	.119	.487	.293	.259
Physics 30	.296		.306	.538	.359	1.260	.456	.360	.457
Chemistry 30								.370	
Foreign Language 30					.143				
Constant	— 8.40	72.62	23.50	31.83	— 12.00	— 41.36	— 48.11	— 26.59	.62
English 30				.124					
Social Studies 30	.322	.059	.129		.286		.279	.194	.167
Mathematics X	.620				.810	.497	1.006	.322	.435
Science X			.405	.494		1.119	.327	.762	.371
Foreign Language 30									
Constant	4.22	60.45	29.40	26.79	— 15.50	— 53.38	— 53.91	— 30.32	— 5.83

former two drawing courses. Therefore, the predictions for Drawing 2 and 4 are compared with the mark received in the new course Drawing 2.

TABLE II

ESTIMATED AND ACTUAL CORRELATION COEFFICIENTS AND STANDARD ERRORS OF ESTIMATE FOR PREDICTED AND RECEIVED MARKS IN NINE ENGINEERING FRESHMAN VARIABLES USING TWO SETS OF PREDICTOR VARIABLES

	Seven Variable Prediction				Five Variable Prediction			
	Estimated ¹		Actual		Estimated ¹		Actual	
Engineer Variable	R	δ est.	r	δ est.	R	δ est.	r	δ est.
C.E. 5	.565	10.7	.450	12.2	.545	10.9	.391	12.9
C.E. 6	.124	8.1	-.116	7.6	.079	8.2	.111	6.8
Draw 2	.510	7.6	.409	9.8	.481	7.7	.363	11.2
Draw 4	.410	10.1	.420 ²	12.4	.416	10.2	.403 ²	12.5
E.M. 1	.539	13.4	.506	12.7	.522	13.6	.457	13.5
Physics 21	.654	15.4	.611	14.5	.629	15.7	.638	14.3
Math. 2	.692	12.8	.566	15.1	.683	13.0	.563	14.7
Chem 40	.698	10.1	.590	11.6	.690	10.2	.606	11.4
Eng. Aver.	.686	7.8	.558	8.6	.670	8.0	.551	8.3

¹(From, Black, 1960, Table II, p. 44.)

²All Drawing 4 predictions are compared with 1957-58 Drawing 2 marks.

A number of observations can be made from this table. First, with one or two notable exceptions the actual relationships between predicted and received marks fell reasonably close to those predicted. C.E. 6 predictions, at best, were little better than a guess and this has been confirmed by the data. In every case except for this particular course, the relationships were lower than those predicted but this is to be expected considering the questionable year to year reliability of the scores used in the predictor and criterion variables. The Drawing 2 correlation coefficients were not as close as those of the other variables. This could be attributed to the fact that Drawing 2 was a new course. Generally speaking, however, the relation-

ships did not drop nearly as much as had been anticipated. This would suggest that the form to form reliability of evaluation in both the Grade XII and University course variables might be somewhat higher than heretofore suspected.

A second observation is readily apparent, that of the "regression effect" of the predicted marks. This is reflected in the generally higher standard error of estimates actually found. Inasmuch as this is a known weakness of the technique, this finding was not surprising. It should be noted that while techniques have been devised to offset this limitation, such correction procedures were not used in this study. Had they been used, the resulting correlations be-

TABLE III
PERFORMANCE OF THE DEVELOPMENTAL AND
OPERATIONAL SAMPLES ON THE GRADE XII
DEPARTMENTAL SCORE VARIABLES

Grade XII Variable		Develop- mental Sample (N = 131)	Operational Sample (N = 245)	Signifi- cance of Difference
English 30	X	65.2	63.8	NSD
	S.D.	10.2	9.6	
Social Studies 30	X	73.3	69.9	1%
	S.D.	10.5	10.9	
Mathematics 30	X	74.4	72.6	NSD
	S.D.	10.3	9.2	
Mathematics 31*	X	69.4	70.3	NSD
	S.D.	14.1	11.3	
Physics 30	X	72.8	70.6	NSD
	S.D.	10.6	9.4	
Chemistry 30	X	73.2	72.1	NSD
	S.D.	11.9	9.4	
Foreign Language 30	X	66.2	65.7	NSD
	S.D.	11.6	10.1	
Mathematics X	X	71.6	71.3	NSD
	S.D.	10.8	8.7	
Science X	X	72.7	71.1	NSD
	S.D.	10.4	8.5	

*Mathematics 31 is a teacher-assigned mark and not determined by Departmental Examination.

tween predicted and actual grades might have been higher than those reported. In any event, the size of standard errors of estimate would have been reduced.

A third aspect of the above table is the relative merit of seven predictor variable equations compared with the five variable predictions. As reported earlier by Black (1960: p. 45) the five predictor variables are not as effective as seven but the relative loss in predictive efficiency is offset by the ease of calculating predicted grades in the schools. Were a computer available, the seven variables equations would be preferred.

Certain other questions arose regarding the comparability of the two samples used in the study, i.e., the sample used to develop the prediction equations (Developmental sample) and the sample on which these equations were used to predict grades (Operational sample). Were these two samples of like ability as measured by performance on the Grade XII Departmentals and did they perform equally well in University? The data to answer these questions are reported in Tables III and IV. The differences between means of the reported variables were tested for statistical significance and are also reported in the above noted tables.

From Table III, it will be observed that only one significant difference was found between the admission qualifications of the two study samples, that of Social Studies 30 which favored the Developmental group. However, looking at all nine variables, the means in all but one instance were higher in favor of the Developmental group. The sole exception was the Mathematics 31 score which is a teacher assigned score. Statistically, using the Sign Test (Siegel, 1956, p. 68-75), the chances of mean differences favoring one group of this order (six in seven) would have a probability of .062. Therefore, we can conclude with some certainty that the Developmental sample presented, as a group, higher overall admission credentials than did the Operational sample although the difference between individual admission scores are, for the most part, not significant.

Table IV, however, reveals a completely different picture. The Operational group as a whole performed much more poorly in the freshman year of Drawing 2 (a new course which probably should not be compared with courses of the previous year and no longer taught), Physics 21, Mathematics 2, and Chemistry 40. Inasmuch as the Engineering freshman courses with the one exception of the new course, Drawing 2, do not differ significantly from the marks in the same course from the previous year, one can conclude that an equivalent method of evaluating students must have been used over the period of the study. For the other three courses, Physics

TABLE IV
PERFORMANCE OF THE DEVELOPMENTAL AND
OPERATIONAL SAMPLES ON NINE FRESHMAN
ENGINEERING VARIABLES

Engineering Variable		Develop- mental Sample (N = 131)	Operational Sample (N = 245)	Signifi- cance of Difference
C.E. 5	X	62.5	60.9	NSD
	S.D.	13.0	13.5	
C.E. 6	X	64.6	65.8	NSD
	S.D.	8.2	6.8	
Draw 2	X	67.2	62.1	1%
	S.D.	8.8	10.8	
Draw 4	X	69.8	62.1	1%
	S.D.	11.2	10.8	
E.M. 1	X	62.2	62.5	NSD
	S.D.	15.9	15.1	
Physics 21	X	61.6	54.6	1%
	S.D.	20.2	16.5	
Mathematics 2	X	60.5	68.0	1%
	S.D.	17.7	15.9	
Chemistry 40	X	60.4	57.1	5%
	S.D.	14.1	13.5	
Engineering Average	X	63.3	61.4	NSD
	S.D.	10.8	11.3	

21, Mathematics 2 and Chemistry 40, which are taught in the Faculty of Arts and Science, the performance of the Operational group on these variables was much below that which might have been anticipated considering the slightly poorer admission qualifications of this group. It seems apparent that different criteria were used to evaluate students in the Developmental sample than existed one year later when the Operational group took the same courses.

It is not the purpose of this paper to evaluate the marking procedures of university professors although it can be readily seen that greater consistency would improve predictions of academic success from year to year. It would seem that although the marks of students in the second year of the study were lower, the general rank ordering of the students did not vary greatly from those of the

previous year. This is evidenced by the relative stability of the correlation coefficients for the two samples reported earlier.

The phenomenon reported above is not unknown in other institutions conducting long-range admission research. It is apparent, however, that if the data from admission research are to be of maximum use in guidance, they must be continuously revised or at a minimum, based on marks obtained from several years so that year to year variations will be minimized so as not to cause discrepancies between predicted and actual marks of the magnitude reported here.

Summary

This study found, first, that marks predicted from five predictor variables were almost equally valid with those predicted from seven variables; second, that predicted marks for a class based on data from a previous year continued to be valid although somewhat less so; and third, continuous revision of prediction equations to compensate for varying levels of evaluation is necessary if the prediction equations are to be of maximum value in counselling students. Stating this last point conversely, if university admission data are to have maximum guidance value, they must be supported by a continuous admissions research program.

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TEACHER LEADER BEHAVIOR AND ITS RELATION TO EFFECTIVENESS AS MEASURED BY PUPIL GROWTH

T. B. GREENFIELD

J. H. M. ANDREWS

The basic problems in the evaluation of teachers may be seen to lie in a small but critical number of issues. The first problem is to identify the factors which are causative or predictive of teaching success. Secondly, criteria must be established by which the success of the teacher can be judged. Finally, there is the need for a general theory or framework within which research may proceed. Pervading all these problems is a general one connected with the construction of satisfactory instruments of measurement and the development of techniques for their application.

I. Theoretical Background

A framework for teacher effectiveness is suggested by Mitzel (1957) and Figure I is based upon this model. It is apparent from this model that behavior is influenced by a number of prior variables only one of which is the teacher and the characteristics associated with him. Effectiveness, in this model, is defined in terms of the goals of a given system of education. It may be presumed that for different goals, different patterns of behavior are appropriate and that even for a single goal, various patterns of behavior may be equally effective.

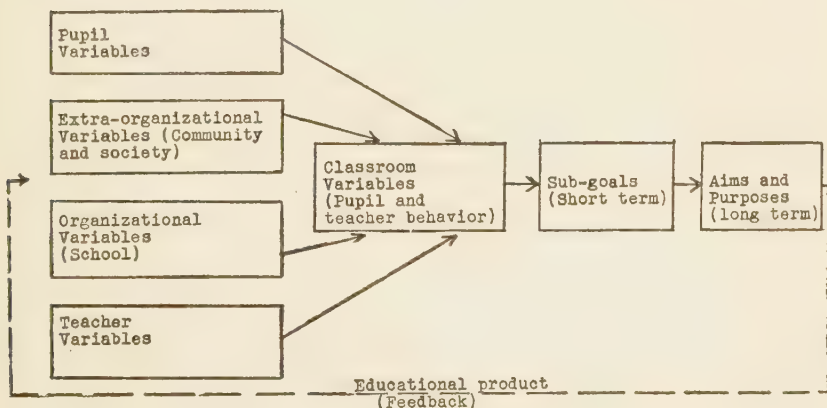


FIGURE I
A Model for Teacher Effectiveness

Effectiveness

From this model, teacher effectiveness may be defined as the degree to which a teacher produces changes in pupil behavior consistent with an external goal.

Leader Behavior

Among the many kinds of behavior which are to be found inside a classroom, the integrative, goal-directed kinds of behavior associated with leadership are likely to be prominent. Since teachers have an appointive headship in classrooms, the leader behavior of the teacher may be expected to have a significant and powerful effect upon other kinds of behavior and upon results associated with those behaviors. In empirical studies of leadership, the framework provided by the Ohio studies of leadership is probably the most useful presented to date (Stogdill and Coons, 1957). This extensive study of leadership has resulted in a remarkably simple instrument known as the Leader Behavior Description Questionnaire (LBDQ). This instrument has been shown to be high in both reliability and validity in describing the behavior of persons in positions of formal leadership.

The Ohio project began with the purpose of studying *what* a leader does and *how* he goes about doing it. That is, the work began with a minimum of assumptions about what leadership is and how it functions. The working definition of leadership stated that leadership "is the behavior of an individual when he is directing the activities of a group toward a shared goal." The LBDQ is the result of the study of *how* the leader functions. Two aspects of leadership are identified in this instrument and these are considered basic and independent dimensions of leadership. One of these, Initiating Structure, is defined as directive, goal-establishing behavior oriented to formal, institutional demands. The other, Consideration, is defined as behavior oriented to the maintenance of personal security, friendliness, and satisfaction in group processes. Effective leadership is considered to be that which manifests both of these aspects of leadership.

II. The Problem

The problem of this study is to relate the behavior of teachers as leaders to pupil growth as measured by achievement on examinations. In this case, the goals implied by effectiveness are those of the Alberta curriculum; and it is further assumed that the Grade IX Departmental examinations are a measure, at least in part, of the degree to which those goals have been achieved. The major hypotheses of the study are as follows:

H₁: Teacher leader behavior is positively related to pupil growth.

H₂: There is significant agreement among the judgements of principals, other teachers, and students about teacher leader behavior.

III. Growth Measures

One of the sub-problems of the study was to derive a measure of pupil growth or achievement. Since pupil ability plays a large part in accounting for achievement levels, an index of growth was sought which would not include that part of achievement attributable to ability. A measure of pupil ability was obtained by using the Cooperative School and College Tests (SCAT). A predicted class achievement mark was obtained from a regression equation based on observed class achievement and class ability. In other words, observed class ability was used to predict class achievement.

To derive the index of growth, differences between actual and predicted class achievement were compared ($Y - Y'$). To make these differences comparable between classes, they were divided by the standard error of the predicted Y' . Thus the growth index of a class is defined as the difference between predicted and actual achievement divided by the standard error of the predicted achievement:

$$G = \frac{Y - Y'}{S.E._{Y'}}$$

This technique is based upon a discussion of the standard error of the predicted Y' found in Garrett (1958, pp. 60-2), Guilford (1956, pp. 372-3), and Ferguson (1959, pp. 223-4).

IV. The Method

The study involved fifty-one teachers of Grade IX and the pupils in their classes. Only teachers of Social Studies or Mathematics were used as subjects in the study. The leader behavior of these teachers was described by three groups of persons: the principal in the school, five other teachers in the school, and then ten students in each teacher's class. In the case of the other teachers and students, the rating of leadership was an average derived from these groups. Thus for each teacher, three independent ratings of leader behavior were obtained. The instrument used to describe leadership was the Teacher Leader Behavior Description Questionnaire (TLBDQ) which is an adaptation of the Ohio LBDQ (McBeath, 1959, 1960). The leadership data were collected from three urban Alberta school systems. Pupil ability and achievement data were collected from the Alberta Department of Education.

The data were analyzed by both parametric and nonparametric methods. The pattern of findings was confirmed in both methods,

though in particular instances the non-parametric analysis performed less strongly than the parametric. Since parametric methods yield the most powerful and useful results, the findings reported here will be largely those of the parametric analysis.

V. The Findings

The findings of the study are centered around teacher leader behavior as Initiating Structure (S-score) and Consideration (C-score). These two dimensions are examined for consistency between raters and for their relation to growth.

Teacher Leader Behavior

A descriptive analysis of the leader behavior of teachers is presented in Tables I and II. It is apparent that teachers and students present a decided negative skew in the distributions of their ratings. At the same time, the distributions of ratings based on principals' judgement are symmetrical and near normal. Moreover, principals' ratings are higher and made over a wider range indicating greater differences in their perception of teacher behavior than either the other teachers or students are willing to accord the same behavior. No attempt was made to go beyond the usual descriptive statistics with these distributions since the purpose of this study does not include the investigation of the possible significance of such differences as do appear.

However, agreement among judges is of importance to the study. The overall consensus among judges is reported in Table III and is

TABLE I

MEDIANS, QUARTILE POINTS, QUARTILE DEVIATIONS, MEANS, AND STANDARD DEVIATIONS FOR THE C-SCORES OF FIFTY-ONE TEACHERS AS DESCRIBED BY PRINCIPALS, OTHER TEACHERS, AND PUPILS

	Principals	Other Teachers	Students
Q ₃	49	46	46
Q ₂	43	43	43
Q ₁	37	39	37
Q	6.0	3.5	4.5
M	43	42	41
S.D.	7.6	5.3	5.8

shown to be significant. A clearer picture of this agreement may be gained from comparing the judges' ratings two at a time for each of the dimensions of leadership. Tables IV and V report the agreement among judges as Pearson r 's. In each case, students and principals are farthest apart in their descriptions of leadership with the other teachers occupying a central position.

TABLE II

MEDIANS, QUARTILE POINTS, QUARTILE DEVIATIONS, MEANS, AND STANDARD DEVIATIONS FOR THE S-SCORES OF FIFTY-ONE TEACHERS AS DESCRIBED BY PRINCIPALS, OTHER TEACHERS, AND PUPILS

	Principals	Other Teachers	Students
Q_3	50	50	45
Q_2	46	47	43
Q_1	41	44	40
Q	4.5	3.0	2.5
M	46	46	42
$S.D.$	7.7	4.7	4.4

TABLE III

CONSENSUS AMONG JUDGES ON RATINGS OF LEADERSHIP DIMENSIONS

Judges	C-Score	S-Score
Principals, Other Teachers and Students	.69**	.67**

**Kendall's coefficient of concordance, W , significant at .01 level.

TABLE IV

PEARSON r CORRELATIONS BETWEEN JUDGES' DESCRIPTIONS OF CONSIDERATION

	Principals	Students
Other Teachers	.65**	.67**
Students	.43**	

**Significant at .01

TABLE V
PEARSON r CORRELATIONS BETWEEN JUDGES'
DESCRIPTIONS OF INITIATING STRUCTURE

	Principals	Students
Other Teachers	.57**	.74**
Students	.44**	

**Significant at .01

Leadership and Growth

The relation of leadership to growth may be examined in two ways. First the dimensions of leadership may be compared singly with growth. Secondly, the dimensions may be compared jointly with growth. This last method is, perhaps, the most satisfactory one since leadership theory postulates that both dimensions must be high to achieve effective leadership.

When the dimensions are considered separately, each is significantly related to growth. Moreover, leadership ratings by each group of judges yields significant relationships with growth. Initiating Structure as judged by other teachers and students reaches .01 significance while the other categories attain the .05 level. These results are reported in Table VI.

The method selected to relate the two dimensions of leadership jointly to growth was multiple correlation. Thus, Consideration and Structure are used as independent variables and growth as the dependent variable. Since R , the multiple correlation coefficient, is subject to inflation, a corrected multiple correlation, cR , was also

TABLE VI
CORRELATIONS OF GROWTH INDICES WITH THE
LEADERSHIP DIMENSIONS OF CONSIDERATION
AND INITIATING STRUCTURE

	Correlation r_{gc}	Correlation r_{gs}
Principals	.26*	.28*
Other Teachers	.24*	.44**
Students	.25*	.43**

*Significant at the .05 level

**Significant at the .01 level

calculated. Both R and cR are reported in Table VII. The leadership ratings of students and other teachers are significantly related to growth but the ratings of principals do not reach the level of significance.

TABLE VII
MULTIPLE CORRELATIONS OF GROWTH WITH
CONSIDERATION AND STRUCTURE*

	$R_{g,cs}$	cR
Principals	.31	.25
Other Teachers	.45**	.41**
Students	.44**	.40**

*g—Growth c—Consideration s—Structure

**Significant at .05

The meaning of the multiple correlations may be more clearly seen in Table VIII which reports coefficients of multiple determination. In other words, the coefficients give the proportion of variance which is associated with each of the leadership dimensions. For other teachers and students approximately one-fifth of growth variance is associated with leadership with by far the greater proportion of this being related to Structure. Consideration contributes only some 2% of growth variance.

TABLE VIII
COEFFICIENTS OF MULTIPLE DETERMINATION USED
IN PREDICTING GROWTH FROM CONSIDERATION AND
STRUCTURE

	Principals	Other Teachers	Students
Consideration	4.16%	1.61%	1.77%
Structure	5.6 %	18.2 %	17.1 %
Combined	9.76%	19.8 %	18.9 %
$R_{g,cs}$	.31	.45*	.44*

*Multiple R's significant at .05

VI. Discussion

An important question raised by the findings of the study is the relative importance of the two leadership dimensions as predictors of growth. It has been mentioned that they are associated with approximately 20% of the variance in growth. In assessing the importance of this contribution to growth, it should be borne in mind that such potentially powerful factors as previous pupil learning, total school environment, socio-economic background, motivation, teacher experience, and teacher training were not controlled. These factors were not controlled partly because of the difficulty of making controls on such pervasive factors and partly because it was the purpose of this study to focus upon leader behavior. That a single aspect of teacher behavior should emerge as a measurable and significant factor is an indication of its importance in the school setting.

The question is also raised of differences between the dimensions of leadership as predictors of growth. Consistently throughout the study, Consideration has occupied a position of less significance than Structure. However, the contribution of Consideration is there to a significant degree. When it is recalled that the growth criterion was based on a set of province-wide examinations emphasizing basic and fundamental learnings, it is perhaps not surprising that Structure, the "hard" aspect of leadership, is of greater significance in predicting growth than Consideration. With other criteria of growth the outcomes of such a study might be considerably altered.

Another area of interest raised in the study is the agreement between the judges in describing leadership and the degree of success attained by each in predicting growth. Although the distributions of leadership derived from each group of raters have characteristics of their own, there is a substantial amount of agreement among them. However, as predictors of growth the group of principals performed less strongly than other teachers and students. In the powerful multiple correlation, the principals were unable to predict pupil growth through their judgement of teacher leader behavior. Thus, although the principals represented in the study produced ratings with high face validity (greater range and more nearly normal distribution), the results were less significant in terms of pupil growth than judgements of teachers and students.

However, one should be wary about generalizing about judgements of principals from the results in the present sample. The number of principals represented in the sample was only 19 and they were using an instrument intended to be used in conjunction with the judgements of a group of like persons. The superior success of

students and teachers may be due only to the greater reliability of group rating over single judgements. Nevertheless, in the common practice of rating teachers, such rating is almost invariably the product of single judgement. It has been argued that since this single judgement is based upon frequent observation, mature judgement, and long experience that the results acquire validity. This validity is not reflected in the case of a small sample of principals rating the leader behavior of their teachers.

VII. Conclusions

1. There is a significant agreement among principals, other teachers, and students in their descriptions of teacher leader behavior.
2. Teachers showing a high degree of leadership tend to induce high achievement in their pupils.
3. Initiating Structure as a dimension of leadership is more strongly related to pupil growth than is the Consideration dimension.
4. Group ratings of leadership based on other teachers' and students' judgements were more successful in predicting pupil growth than the single ratings of principals.

VIII. Implications

This study has obvious implications for the training of teachers, their selection for positions, and the evaluation of their work. However, before such practical applications can be considered, many questions about leadership and growth remain to be answered. This study was carried out within a specific and rather narrowly defined set of educational objectives. Moreover, it was limited to two school subjects and to a single grade level. Further studies are required, therefore, to clarify both leadership and growth. The TLBDQ has shown itself to be a successful research instrument, though it is not without limitations; its direct application in evaluation of teachers would be neither desirable nor practical.

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LEADER BEHAVIOR IN SOCIAL SYSTEMS

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An important axiom of educational administration is that the administrator should know and understand the social system in which he functions. The axiom implies that administrators should be aware of the expectations held by reference groups with respect to education in general, and with respect to the administrator's role in particular. As Campbell states,

If the school superintendent had but one public to deal with his task would be relatively simple, but this is not the case. In each school community there are many publics. These publics may differ by way of occupation, income, politics, religious affiliation, organizational membership, residential area, national background, race, and other factors It may be that in the number and diversity of his publics the school administrator stands in a unique position among other administrators. This position becomes even more complex when we begin to assess the various expectations which many of these publics have for school and school administrators (4).

Moreover, school administration does not deal solely with matters related to buildings, money, organization, legal provisions, and the like, even though much of the literature may suggest this. As Campbell goes on to point out, "School administration also deals with the values, beliefs and feelings of people (4, p. 128).

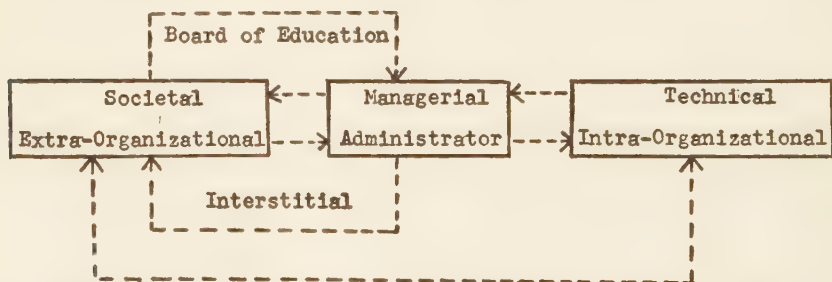
Counts, in discussing the role of the superintendent, notes that the administrator must possess a clear vision of not only his own values but also those of the society he serves if he wishes to achieve the statesmanship level in his profession (6). Furthermore, "the superintendent should know his community. He should know something of its history, particularly with reference to its conception of public education. He should strive to know it as a whole in its traditions and values, its prejudices and idiosyncracies" (6, p. 86).

Role theory as developed by Parsons, Shils, and others (19) suggests that the administrator's reference groups will vary in the expectations held for the administrator's role. In broad terms, role theory maintains that almost any activity of any individual may be viewed as being in conformity with or in opposition to the expectations of his role. These expectations include not only his own concept of his role but also the role expectations of others relative to his behavior in the role which he occupies. The role may thus be defined as the complex of specific activities and behaviors imposed upon a person who occupies a particular

position in a social system. Linton (14) points out that a social system is made up of statuses or positions which are accompanied by rights and duties defined in terms of expectations for behavior on the part of the individuals occupying such positions. That role behavior is attached to a particular position within a social system is also supported by Newcomb (18). Parsons (20) states that the positional aspect of an individual in a social system is his status, whereas what the individual does while holding this status is his role.

The collectivity of individuals and groups with whom the superintendent interacts while maintaining the school organization may be viewed as a social system possessing collective and shared goals. This social system is composed of roles which are interrelated, interlocking, and interacting. It may be said that roles form the basis for ordering social systems by serving to clarify and to make meaningful the functions and tasks of individuals comprising the system. The totality of the roles of a formal social system represents the functional human resources available for accomplishing the purposes and goals for which the system came into being.

The superintendent of schools has a unique role in the social system depicted in Figure 1. He is not only responsible to the board of education; he must also assist this body in the formulation and implementation of its policies. At the same time he must be responsive to the feelings, values, and wishes of both intra-organizational and extra-organizational individuals and groups. It is no wonder that he may be, and often is, confronted with differing role-expectations as he attempts to discharge his multiple leadership responsibilities.



Role theory suggests that if the administrator acts in conformity with the role-expectations of the individuals and groups comprising this social system, he tends to have their sanction and approval. Conversely, to the extent that he deviates from their role-expectations, he faces censure and disapproval. The difficulty of

the superintendent's position is apparent when we consider the number of groups which may hold varying expectations for his behavior.

Since his role is complex, and his reference groups many, the possibility of conflict relative to expectations for the superintendent's role is an ever-present hazard. Campbell, for instance, mentions several types of conflict that may confront the superintendent. One of these is the conflict which results from expectations which may require a superintendent to behave in a manner contrary to what he himself believes is correct and appropriate behavior (4, pp. 259-261). Bidwell, too, mentions that a person joining an organization may bring with him certain behavior-determining elements which may conflict with the expectations of the organization (1). Chase suggests that individuals make evaluations of leadership on the basis of three factors: their perception of what the situation requires, their own and others' roles, and their own and others' needs (5).

The perception of others relative to a superintendent's behavior appears to play a significant role in fulfilling role-expectations. Psychologists and sociologists point out that individual and group attitudes and values extensively affect our perceptions of observed phenomena. Indeed, neither accurate knowledge nor first-hand experience may be sufficient to correct mis-perceptions, for changes in attitude and sentiment do not necessarily follow modifications in an individual's cognitive structure. It may be correct to say that perceptions of the superintendent's role-behavior are affected by at least the following factors: the actual role itself; beliefs, attitudes, needs, and values; personality and other psychological variables; and the nature of the observed and recalled phenomena. With the number of factors operating to influence role-perception, it may well be that the degree to which there is congruence between role perception and role expectations may be the degree to which the superintendent is able to satisfy the role-expectations of his several alters. Furthermore, the extent to which a superintendent is able to perceive, cope with and resolve conflicting role expectations may well determine his effectiveness and efficiency, for his own accomplishments are often circumscribed by the role-expectations and the role-behavior of others. As Linton states,

The individual . . . finds himself frequently confronted by situations in which he is uncertain of both of his own statuses and roles and those of others. He is not only compelled to make choices but also can feel no certainty that he has chosen correctly and that the reciprocal behavior of others will be that which he anticipates on the basis of the statuses which he has assumed that they occupy. This results in numerous disappointments and frustrations (15).

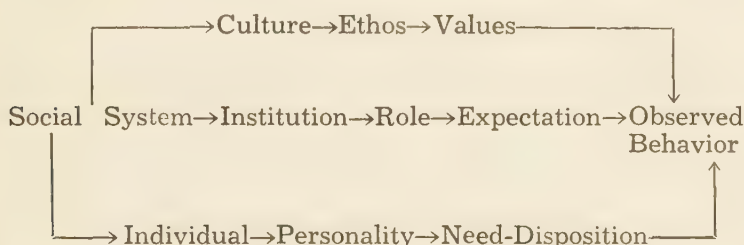
Campbell supports Linton's view when he says,

... In a sense these conflicting expectations among reference groups place the school administrator squarely in the middle . . . a superintendent may find his board of education holding one set of expectations for him while his staff holds another. This is not merely a theoretical matter: it is one which has been documented time and again in practice (4, p. 142).

Theory and Research

During the past decade, a sizable number of theorists, writers, and researchers have focused attention upon conflict within social systems. As a result, both leader behavior studies, and psychological and sociological role theories are offering useful frameworks for viewing role behavior in leadership positions. David Riesman, for instance, has enunciated three ways in which social conformity behavior may be generated: through tradition-direction, through inner-direction, and through other direction (21). Riesman's thesis that inner-direction is gradually being supplanted by other-direction suggests a gradual but definite change in American value orientations which appears to have special significance for the role behavior of leaders. If other-direction is indeed receiving increased sanction in American society, leaders will require more accurate knowledge of the nature of the beliefs, attitudes, and values of the individuals and groups with whom they interact. For school superintendents a shift toward other-direction underscores the importance of accurate knowledge and understanding of these variables as they are manifested by their intra-organizational, extra-organizational, and interstitial reference groups. It is evident, too, that if other-direction is becoming a sanctioned pattern for a large segment of society, the expectation of this segment will be that the wishes of others should receive careful consideration in decision-making at leadership levels. The expectation is, clearly, that decision-making should become more and more tempered by the wishes and values of the leader's important reference groups. This is not to say that decision-making will be entirely determined by these variables; it does imply, however, that the emerging expectation is that these factors should receive careful consideration in the decision-making deliberations of persons in leadership positions. Riesman's thesis suggests the primary importance of accurate perception on the part of leaders with respect to alter-group expectations for leadership positions. The effectiveness and efficiency of leaders, their ability to function with a minimum of conflict, and their success in coordinating the efforts of individuals and groups toward common goals may be determined, in large measure, by two factors: "first, the ability of the leaders to perceive reference-group expectations accurately; second, the ability of leaders to satisfy and modify these expectations while moving the organization forward toward its goals.

Theorists such as Getzels and Guba (9) maintain that administration is a social process with clearly defined characteristics. Structurally, administration occurs as a hierarchy of subordinate-superordinate relationships within a social system. Functionally, the administrative process consists of the allocation and integration of roles and facilities for the achievement of the goals of the system with reference to a broader cultural framework. Operationally, administration takes place in an inter-personal setting and is invariably concerned with social relationships. Viewed in these terms, behavior in social systems is a function of the interaction of several classes of independent phenomena. Getzels' recently extended theoretical model points to three such classes:



The model, which shows the nomothetic and idiographic dimensions of social behavior, suggests several types of conflict to which role incumbents in social systems may be subject: conflicts in values, role-personality conflict, role conflict, and personality conflict. Moreover, the recent addition of the third dimension "culture ethos values" makes the model useful for explaining extra-organizational as well as intra-organizational relationships in school administration.

Leader Behavior and Reference Group Expectations

Recent studies based on theoretical formulations have documented the varying leadership styles exhibited by leaders; the varying expectations held for leader behavior by different reference groups; and the results of leader behavior which was at variance with reference group expectations.

1. Research has confirmed that leaders exhibit different but characteristic leader behavior styles. Using the Getzels' model as the basis for investigating relationships between the behavior of superintendents and principals, Moser's (16) study concentrated on three different styles of leader behavior. The *'nomothetic style'* was characterized by behavior which stressed goal accomplishment, rules and regulations and adherence to the principle of centralized authority at the expense of the individual. Effectiveness was rated

primarily in terms of behavior directed toward accomplishing the school's objectives.²² The *idiographic style* was characterized by behavior which stressed the individuality of people, minimum rules and regulations, decentralized authority, and highly individualistic relationships with subordinates. A primary objective was to keep subordinates happy and contented. The *transactional style* was characterized by behavior which stressed goal accomplishment, but which also made provisions for individual need fulfillment. Nomothetic and idiographic behavior were balanced and each style was judiciously utilized as the occasion demanded.

Similarly, Andrew Halpin (12) was successful in delineating four different leadership styles in terms of two leader behavior dimensions: *initiating-structure-in-interaction* (the leader's propensity to structure relationships with staff members and his ability to define patterns of procedure, organization, and communication); and *consideration* (the leader's propensity toward mutual friendship, respect, and trust in relationships with staff members). Halpin showed that reference groups perceived some leaders to be high on both dimensions. Other leaders were perceived as low on both dimensions, while still others were perceived as high on one of the dimensions but low on the other.

2. Research during the past decade has also highlighted the fact that reference groups express conflicting expectations and preferences concerning leader behavior in social systems. Guetzkow, for example, found that leaders who exhibited marked authoritarian tendencies were "rejected by relatively many followers and accepted by relatively many superiors," (11). On the other hand, leaders who did not exhibit authoritarian tendencies were "accepted by relatively many followers and rejected by relatively many superiors." Fleishman's research in industry found that the attitudes of foremen relative to leadership and the management of workers were much more congruent with the attitudes of superiors than with the attitudes of subordinates (8). Turner's empirical research indicated that participatory leadership was superior to supervisory leadership in effecting changes in group attitudes (23). Halpin's study of Ohio superintendents, moreover, found that school staffs and boards of education perceived leader behavior differently with respect to *consideration* and *initiating-structure-in-interaction* (12, p. 78). School boards expressed a much stronger preference for superintendents who were high in *initiating structure* than did school staffs. In like manner, an Air-Force study reported by Halpin showed that leader behavior oriented toward *initiating-structure-in-interaction* correlated positively with effectiveness ratings of superiors (13).

Seeman, in studying role-conflict among school superintendents in Ohio, stated that contradictory expectations of alter groups placed institutional leaders in a position in which they were especially vulnerable to attack or conflict along four dimensions: (a) the status dimension, (b) the authority dimension, (c) the institutional dimension, (d) the means-end dimension (22). Moreover, when the extent of agreement on role definition for school superintendents and board of education members as defined by role incumbents was studied by Gross (10) and others, it was found that (a) 71 per cent of the superintendents perceived conflicting expectations for their behavior with respect to selection and promotion, and (b) 88 per cent sensed conflicts with respect to their roles in salary recommendations.

3. What are the results of conflicts that develop because of incongruence in expectations for leader behavior? Several studies have noted that such conflicts markedly influence satisfaction, effectiveness, confidence in leadership, and attitudes toward the work situation. Ferneau, in a well-designed study, investigated the interaction of school administrators and consultants to determine if any relationship existed between role-expectations and the perceived effectiveness of consultants. Using various role categories for consultants such as the expert, the process person, and the resource person, Ferneau found that when administrators and consultants agreed concerning expectations, the consultations were deemed successful (7). However, if no agreement was reached concerning expectations, the consultations were viewed as unsuccessful. Moyer (17) used a similar study to investigate leader behavior by focusing upon attitudes toward authority. This study of leadership-centered attitudes and group-centered attitudes resulted in a conclusion which parallel Ferneau's: favorable attitudes toward the work situation were engendered when principals and teachers agreed on role-expectations for the leader. Similarly, Brown and Neitzel (2) reported that morale tended to suffer if discrepancy existed between an alter-group's definition of a leader's role, and the role as it was perceived by the leader himself.

Further support for these findings was given by Campbell's (3) study. Campbell reported (a) that teachers whose wants and needs agreed with their principals' expectations expressed significantly higher job satisfaction than did teachers whose wants were in conflict with the principal's definition of the teacher's role; (b) that when principals designated the effectiveness of teachers, the effective teachers were those whose wants and needs were similar to the principals' expectations, and (c) that teachers whose wants and needs were in agreement with the expectations of the principal ex-

pressed more confidence in the leadership of the principal. Moser (16) has also reported that high mutual ratings of effectiveness and confidence by superintendents and principals were accompanied by similarities in leadership style, feelings of security, general satisfaction with relationships, desire to consult with one another on important matters, and clear delineation of duties and authority for decision-making. Conversely, the absence of mutual ratings of effectiveness and confidence was accompanied by confusion, lack of security, general dissatisfaction with the relationship, poorly defined duties, and poor delineation of authority for decision-making.

Leader Behavior, Perception, and Values

Most of the studies cited above were concerned with role-expectations and conflict as they pertain to the administrator in interaction with intra-organizational or interstitial reference groups. Little reference was made to role-expectations of extra-organizational groups or to the possibility that conflict may exist between the administrator and these groups. To exclude extra-organizational groups from the social system in which the administrator functions, however, violates the unity of the administrator's role at most levels, and particularly at the superintendency level. Observation confirms that much of the superintendent's work lies in the area thus excluded: in working with various community groups and individuals about matters that are essential for maintenance of the school organization (27). The superintendent interacts at times with intra-organizational reference groups, at times with interstitial reference groups, and at times with extra-organizational reference groups. No one of these groups has a monopoly on the expectations generated for his behavior; he must be prepared, in his position, to cope with expectations emanating from all three.

Although there is little reported research concerning the expectations of extra-organizational reference groups for leader behavior in school organizations, some recent studies appear to indicate that accuracy of perception and an understanding of values will enhance the administrator's effectiveness and efficiency in dealing with community groups. Getzels (26), for example, has suggested that difficulties in interpersonal relationships arise not so much from complexities and differences in values that are in the open and understood, as from complexities and differences that are underground and misunderstood. In like manner, Steiner in reporting on interpersonal behavior as influenced by accuracy of social perception found that co-ordinated collective action required each participant to take the role of the other in order to gain insight into the other's intentions and preferences (31). When role occupants were motiv-

ated toward co-operation and had freedom to alter behavior as a result of their perceptions, correct social perception assisted group efficiency and interpersonal competence (31, p. 291).

Several recent studies appear to corroborate the above findings as they relate to the educational setting. Sletten (30) reported that a great deal of the conflict associated with superintendent-board of education relations has its source in attitude and value differences. McPhee (29) found that congruence in educational viewpoint between community respondents and the superintendent of schools was related to the degree of school approval manifested by the citizens. Similarly, DeGood (25) reported a close association between effectiveness rankings of superintendents and the precision with which these chief executives perceived the prevailing educational viewpoints and attitudes in their communities. In a study of the relationships between values, value-perceptions, and confidence in leadership Abbott (24) found that similarity in value-orientations and accuracy of perception concerning value-orientations affected the ratings of confidence which school boards gave with respect to their superintendents of schools. My own study (28) showed that misperception played a prominent role in increasing the conflict with which superintendents saw themselves confronted. A conflict typology constructed on the basis of conflicting superintendent-reference group perceptions and expectations revealed that superintendents exhibited three major conflict tendencies. One tendency of superintendents was to be *Innocent*: they tended to believe that no significant differences existed between their own views and the views of others when, in fact, such significant differences existed. Second, superintendents tended to be *Keen*: they accurately perceived and defined reference-group expectations even though they did not concur with these expectations. Finally, superintendents tended to be *Trouble-Seeking*: they saw conflicts where none existed. Although the reference groups agreed with the superintendents on issues which occasioned this conflict type, the superintendents did not perceive this agreement. They attributed beliefs to the reference groups which were in opposition to their own.

Implications For Training

Research in the past decade has stressed the social context in which administrators function; particular emphasis has been placed upon the complex social phenomena which impinge upon the administrative setting to create problems and ambiguities requiring decisions and solutions. Both research and observation have tended to confirm that the situational context of administration is not only dynamic but often turbulent: there is a continuous interplay of social, cultural, political, psychological, anthropological, spiritual,

and economic forces. Such dynamic elements, singly and in combination, comprise a total field of forces that create and underlie the complex and kaleidoscopic social phenomena surrounding administrators in social systems.

If administrators are to function with a maximum of effectiveness and efficiency much of their training should be directed toward improving their understanding of social systems they will encounter upon appointment. The conceptual horizons of candidates should be broadened to encompass the totality of such systems: intra-organizational, interstitial, and extra-organizational. The administrator will require technical competencies to be sure. However, social, process and conceptual competencies will be of equal importance. The model on the following page suggests that social science concepts and interdisciplinary content may play a major role in developing such competencies. Certain assumptions are basic to this model: (1) phenomena occurring in social systems are complex, but they are rarely random or haphazard; (2) social system phenomena are the product of the interaction of dynamic elements which comprise the total field of forces characterizing social systems: (3) since social system phenomena are seldom random nor haphazard, it may be possible to order and to understand them.

The model espouses the basic view that social science concepts provide alternative ways of reviewing the total field of forces that underlie social phenomena in social systems. Concepts provide ways to dimensionalize reality and to order the real world: they provide complementary and alternative "cognitive maps" for viewing complex social phenomena. The administrator who is able to dimensionalize reality in many ways is not only in a better position to understand social phenomena, but equally important, he is also more aware of alternative bases for action and decision-making.

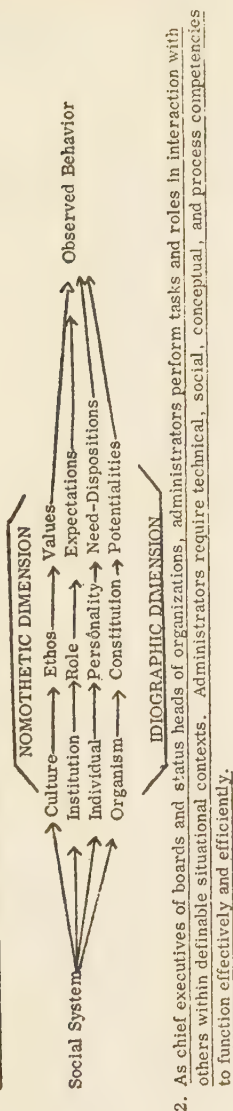
It appears that certain aspects of the administrator's training should receive special emphasis.

Perception.—Capacity to become insightful with respect to social and group processes appears to be an important pre-requisite to administrator effectiveness and efficiency. Keen and insightful perceptual ability can do much to improve an administrator's capacity to function in a complex social system. Selection procedure should be developed to ensure the selection of candidates who possess much better than average perceptual and intellectual ability. Such abilities are necessary for those who seek insight into social and group processes necessary for effecting social change in a dynamic society.

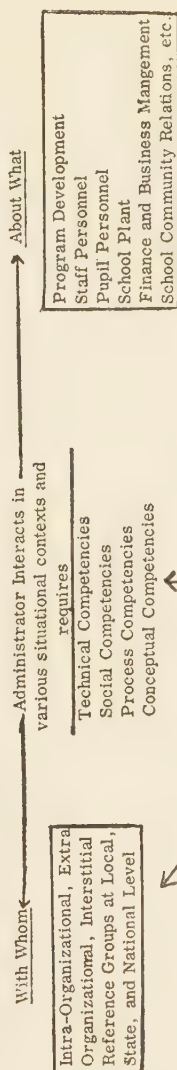
Following selection, training programs should give increased attention to any perceptual "screens" which may result in insensitivity

INTERDISCIPLINARY CONTENT AND ADMINISTRATOR TRAINING PROGRAMS

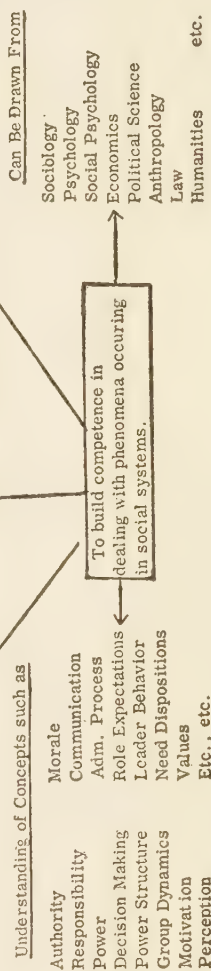
1. Administration is a social process.



2. As chief executives of boards and status heads of organizations, administrators perform tasks and roles in interaction with others within definable situational contexts. Administrators require technical, social, conceptual, and process competencies to function effectively and efficiently.



3. Many Social Science concepts are necessary to build competence in dealing with social system phenomena and to extend the administrator's perimeter of awareness concerning such phenomena. These concepts need to be identified. Once identified, it may be possible to determine the contributions of various social sciences.



to reality on the part of candidates in training. Handicapping perceptual screens should be removed through appropriate training and allied activities.

There are as many ways to approach this task as there are "ways of knowing". Basic disciplines such as psychology, sociology, political science, and others can do much to erase perceptual screens through the provision of concepts that widen the candidate's peri-

meter of awareness. Moreover, literature, history, and drama can do much to widen perceptual horizons and to increase the ways of knowing. Finally, carefully structured observation, field study, and guided internships may all contribute to this end.

Motivation.—Persons charged with responsible positions in social systems must be aware of both value patterns and the motivators of individual and group beliefs and actions: psychological, sociological, anthropological, and spiritual. Training programs should attempt to remove the “blind spots” of trainees in these areas. Again, broad acquaintance with the basic disciplines and the humanities usually leads to increased awareness of both value patterns and the factors which motivate group actions. In order to perceive reality accurately, it may be necessary for administrators to view the world through many sets of spectacles—those of the psychologist, the sociologist, the historian, the novelist, the political scientist, to mention a few. Moreover, deliberate and purposeful exposure in the arena of conflicting community values and beliefs appears essential to administrators in training.

Communication.—Although administrators spend nearly ninety per cent of their time in talking and listening, recent studies tend to indicate that communication between superintendents and others often tends toward mediocrity. Since much of the administrator's activity will centre in the area of communication as he interacts and interrelates with others in his social system, more effective means of communication appear vital for superintendents. Training programs should direct increasing attention to the development of administrator competence in this critical area.

Group Dynamics.—The nature of the administrator's position demands continuous interaction with many types of groups. Group leadership skills appear essential. To develop these skills, however, the administrator must understand the dynamics of group action and the processes by which groups can be made purposeful and cohesive. Such understanding is necessary if administrators are to unify and harmonize reference group expectations.

Power Structure.—All social systems are based upon some system of power and exhibit complicated webs of sociometric networks. The administrator's effectiveness as he functions in a social system which is characterized by formal and informal hierarchies of power, prestige, and influence, will be determined in large measure by factors already mentioned: his ability to perceive clearly, his ability to communicate well, his skill in group processes, his ability to value patterns and motivating forces, and his ability to use cognitive maps to dimensionalize reality in a variety of ways.

Decision Making.—Most decisions in the administrator's social system will be made on the basis of an experiential background in a context of power. There will be a constant matching of alternatives, and a constant attempt to predict the results of decisions. Perception, motivation, communication, group dynamics, power structure and the effective use of cognitive maps will all tend to influence and temper decision making. Moreover, it is doubtful whether effective decision-making is possible without consideration of all these factors.

Leader Behavior.—Each of the above components will determine in some degree the extent to which the administrator can function effectively and efficiently as a leader in making and implementing decisions while maintaining cohesion and purpose in groups with which he interacts. Moreover, the extent to which he can do these things without undue conflict will be determined largely by his perspicacity and his understanding of the components outlined.

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BOOK REVIEW

"University Adult Education: A Guide to Policy"

by

Renee and William Petersen

(Harper 288 pp. \$5.50)

University Adult Education: A Guide to Policy is, as Roland R. Renee, President of Montana State College comments in its foreword, "an important and disturbing book". Stemming out of a specific study instituted on that campus, the book surveys the experience of other institutions in this university function which has been a matter of debate on many a campus. The Petersens take us on a tour of adult education emphasizing its significance and pinpointing its problems in terms of the rapidity of change which characterizes our time and the mixed achievements of other parts of the educational system. While oriented to American experience and institutions, its observations are generally pertinent to Canada.

The core of this survey is a consideration of principles and policy in the administration of adult education. The authors, alarmed about the content of university adult education point to low-level, poor quality fare which they say is too often offered to adults. While conceding an important role for the university in adult education, they argue for the use of the university's resources in programs which maintain the standard of the traditional academic disciplines. Further, the Petersens suggest there must be a clear limit to the recognition of the community's demands on the university whose reservoir of scarce skills and facilities is small.

The authors analyze the often obvious separation between the traditional program of the university and its adult education operation and suggest certain requirements for a more effective integration of the two. This internal relationship and as well, the character of the university's adult education program, is connected to the underlying problem of finance on which the Petersens offer some refreshing and down-to-earth advice.

University Adult Education provides an excellent review of available literature and current opinion on the subject. It is unfortunate that thinking and practice from non-university adult education has been rather inaccurately connected to the adult education work on campus. Unfortunately too, the book, with regrettable consistency, emphasizes the negative. Were the authors to have drawn

more readily for illustration from some of the imaginative and first class adult fare which American institutions currently offer, their survey would have been perhaps more constructive and certainly more accurate.

Nevertheless, as a chart against which the adequacy of the university extension operation can be compared, the survey is thought-provoking and stimulating. It will be of interest to all concerned with adult education activity but of particular value to the university administrator.

Duncan Campbell.

ANNOUNCEMENT

The Alberta Advisory Committee on Educational Research, in keeping with its policy of publishing research findings of interest to educators and those interested in school problems, is pleased to announce the publication of five new Monographs in Education.

Monograph 2: School Examination Practices and Standards in Alberta. (MacArthur and Hunka) Price: \$2.00

Monograph 3: The Alberta Teacher Force in 1957-58. (MacArthur and Lindstedt) Price: \$3.00

Monograph 4: Theory and Practice Governing the Time of School Entrance. (Dey) Price: \$3.00

Monograph 5: Rural Alberta: Patterns of Change. (Uhlman) Price: \$3.00

Monograph 6: Pupil Personnel in Alberta Secondary Schools. (Black, MacArthur, and Paterson) Price: \$3.00

A limited number of Monograph 1: Composite High Schools in Canada (Andrews and Brown, editors; Price: \$1.00) are still available.

Persons wishing to order these Monographs may do so by writing to the Director, Alberta Advisory Committee on Educational Research, Faculty of Education, University of Alberta, Edmonton, Alberta. You are advised to order as soon as possible as only a limited number of copies of each monograph have been printed.